

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted from the academic year 2015 – 2016)

SUBJECT CODE: 15BT/AC/GB24

B. Sc. DEGREE EXAMINATION, APRIL 2016
BRANCH VI(A) – ADVANCED ZOOLOGY AND BIOTECHNOLOGY
SECOND SEMESTER

COURSE : ALLIED – CORE
PAPER : GENERAL BOTANY – II
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS

I. CHOOSE THE CORRECT ANSWER: (5 x 1 = 5)

- In Funaria these are small resting buds developed on the rhizoids:
(a) bulbs (b) tubers (c) bulbils (d) nodules.
- The vascular bundles in the rachis of Cycas is inverted
(a) omega (b) sigma (c) Lambda (d) None of these
- One molecule of glucose contains about ----- K.cal. of energy:
(a) 680 (b) 606 (c) 686 (d) 868
- This is the first hormone discovered in plants:
(a) ABA (b) Gibberellins (c) Ethylene (d) Auxins
- This part of the plant is the starting point of making a quality bonsai.
(a) Stem (b) root (c) rhizoid (d) rhizome

II. FILL IN THE BLANKS: (5 x 1 = 5)

- Paraphyses are multicellular, green, sterile, upright filaments with capitate heads, associated with antheridia of
- Decrease in photosynthetic yield beyond 680nm is called.....
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- “Maiden hair fern” is the common name for
- Dormancy of buds can be broken by treating with
- The seeds used in Mushroom cultivation are called.....

III. STATE WHETHER TRUE OR FALSE: (4 x 1 = 4)

- Photosynthesis is an anabolic process:
- Richest source of gibberellins in higher plants are found in their leaves:
- Female cones are present in cycas.
- Mushrooms are not plants.

IV. MATCH THE FOLLOWING**(4 x 1 = 4)**

- | | |
|--------------------|------------------|
| 15. Theca | (a) Floriculture |
| 16. False indusium | (b) Capsule |
| 17. Sago | (c) Adiantum |
| 18. Cut Flowers | (e) Cycas |

IV. ANSWER ANY SIX, EACH ANSWER SHOULD NOT EXCEED 50 WORDS**(6 x 3 =18)**

19. Write about seta.
20. Define vernalisation.
21. Photolysis.
22. What is carbon assimilation?
23. Tissue culture – write a brief note on it.
24. What is an oyster mushroom?
25. Define vase life?
26. Define photoperiodism.
27. What is a coralloid root?

SECTION – B**ANSWER ANY FOUR IN 200 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY****(4 x 6=24)**

28. Draw the longitudinal section of Moss capsule and label the parts.
29. Describe spore dispersal in Adiantum.
30. Bring out the differences between C₃ and C₄ plants.
31. Give the schematic representation of Glycolysis.
32. Draw and describe the anatomy of Cycas leaflet.
33. What is Bonsai soil? What are its types?

SECTION – C**ANSWER ANY TWO QUESTIONS IN 1000 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY****(2 x 20=40)**

34. Give a detailed account on naturally occurring plant hormones and their applications.
35. Write in detail about Krebs cycle.
36. Elaborate the principles of plant tissue culture.
37. Give details of mushroom cultivation and their marketing strategies.
